INDEX TO SURGICAL PROGRESS.

HEAD AND NECK.

Two Cases of Linear Craniotomy in Microcephalus. By CLAYTON PARKHILL, M.D. (Denver.) The first patient, a boy, aged four years and eight months, was a hopeless idiot. He was restless and walked about continually in a stooping posture with irregular, uneven gait. The saliva dribbled from his mouth and he sucked his thumb. His facial expression was blank and he continually uttered an idiotic cry. His attention could not be held on any object, and he would not play continuously with anything. He could utter two or three syllables, which his parents could interpret as meaning certain things, but which no stranger could possibly understand as words. His head was markedly microcephalic and conical, owing to the lack of development of the frontal and parietal eminences. October 9, 1891, craniotomy was done, a section of the cranium was removed, three-quarters of an inch wide, and six and a half inches long, on the right side, three-quarters of an inch from the median line, and extending from the anterior hair line, that is midway between the parietal eminence and the sagittal suture, to within an inch of the inion. Ten weeks later the left side was operated on in a similar manner, with the addition of a bone incision an inch and a half long by a half inch wide, extending downward toward the ear from the middle of the long bony wound. Recovery from both operations rapid and uneventful. At the end of five months a marked improvement had occurred in his mental condition. No longer stoops, has stopped dribbling, rarely puts thumb in his mouth, still has slight convulsions, one every two weeks, displays a degree of intelligence equal to most children of his age, and has made much progress in talking.

The second case, a girl, five years and nine months of age, was

likewise a complete idiot, but her skull was in appearance megalocephalic rather than microcephalic. This was found to be due to the great thickness of the cranial bones, which along the line of operation were from one-quarter to one-third of an inch thick.

May 19, 1892, craniotomy was done as in the previous case, the length of the bone incision being fully eight inches. The recovery from the operation was uneventful. Already, within a few weeks after the operation, when the report is made, the author notes decided improvement in intelligence.

A report of the results noted after the lapse of a much longer time would greatly increase the value of these reports.—*International Medical Magazine*, November, 1893, p. 896.

BONES—JOINTS—ORTHOPÆDIC.

Final Results in Tubercular Ostitis of the Knee. By V. P. GIBNEY, M.D. (New York). The author has records of 499 cases of tubercular ostitis of the knee, observed between the years 1868 and 1887. Three hundred of these cases have been traced to the present time, and final notes of their condition constitute the basis of this report.

Sex.—223 females; 276 males.

Side.—In 239 cases the right knee was affected; in 235 it was the left; in 25 the side is unrecorded,

Age when disease developed.—In 197 out of 387 cases, or nearly 51 per cent., the disease developed before the age of five years; in 142, or 36 per cent., between the ages of five and ten. In 39 cases, or about 10 per cent., between the ages of ten and twenty years; in 9 cases, about 2 per cent., after the twentieth year had been passed.

Involvement of other joints.—Of 499 cases there were only 16, or 3 per cent., in which other joints or bones were involved. Of the 16, 8 had spondylitis; 2 ostitis of the hip; 1 ostitis of the ankle; 1 disease at the elbow; 1 disease of the wrist and shoulder;

2 affections of the other knee; and in 1 the other knee, an elbow and a shoulder were also involved.

Abscesses.—Of 300 cases, 140 (46 per cent.) had abscesses.

Mortality.—Of 300 cases, 40 have died; 6 of tubercular meningitis, 14 of exhaustion after prolonged suppuration, 3 from phthisis, 2 from dysentery, 2 from amyloid degeneration, 12 from intercurrent affections not connected with the disease, and 1 from shock following excision. Assuming that 22 of these deaths are attributable to the disease, the mortality is 7⅓ per cent.

Treatment.—Three forms of treatment have been in use: (1) The purely *expectant*, involving treatment of symptoms, relief of exacerbations, irregular use of apparatus, or frequent changes of apparatus; (2) the *fixation* treatment, involving the continuous use of apparatus, partially or completely immobilizing the joint, including also various forms of extension apparatus; (3) the *protective*, meaning thereby immobilization of the joint until all acute signs have subsided and convalescence is assured, and the use of apparatus efficient to prevent concussion, or jar, or tremor of any kind. The apparatus chiefly used by the reporter for this purpose has been the "Thomas" knee splint.

Although it is impossible to draw a sharp line of division between these groups, still the reporter thinks the distinctions may be sufficiently drawn to admit of generalizations. His conclusions are as follows:

Expectant Plan.—Number of cases, 60; abscesses, 23 (38 per cent.). Of these 23 abscess cases, 14 recovered with motion in the joint; 9 were pretty firmly ankylosed. Of the 37 non-suppurating cases, 30 recovered with motion, 7 were ankylosed. In all 44 (60 per cent.) recovered with motion.

Fixation Plan.—Number of cases, 145; abscesses, 63 (43 per cent.). Of these 63 abscess cases, 43 recovered with motion, 20 became ankylosed. Of the 82 non-suppurating cases, 70 had motion, 12 were ankylosed. In all 113 (77 per. cent.) recovered with motion.

Protective Plan.—Number of cases, 37; abscesses, 19 (about 50 per cent.). Most of these, however, had abscess before the treatment was begun. Of these 19 abscess cases, 16 recovered with motion; 3 were ankylosed. Of the 18 non-suppurative cases all recovered with motion. In all 34 (95 per cent.) recovered with motion.

Amount of Motion Preserved.—In 16 of the cases in which abscess occurred motion over an arc of more than 90° was preserved. In the non-suppurating cases 25 could be voluntarily moved over an arc of 90°.

Relapses have been infrequent. Of the abscess cases only 4 relapsed during periods varying from seven to twenty years. Among the non-abscess cases 6 relapsed.

Need of Continued Support.—Fourteen (4½ per cent.) of the abscess cases and 22 (7 per cent.) of the non-abscess cases continue to wear some kind of support; that is, 12 per cent. of the entire 300 cases seen.

Deformity.—Out of 200 cases, in 2 there was complete luxation of the tibia, in 150 sub-luxation and in 48 no sub-luxation. Out of 227 cases, 71 could extend their limbs to an angle between 175° and 180°; 141 to an angle of not less than 165°; and 15 got well with deformity at an angle under 135°. The protective treatment gave the largest percentage of good results, so far as position is concerned, the fixation next, and the expectant the smallest percentage.

Epiphyseal Lengthening.—Of 116 cases measured, in 6 there was a lengthening of one inch; in 15 three-quarters of an inch; in 34, half an inch; in 17, quarter of an inch. That is to say, there was a relative increase of length of the femur in 62 per cent. of the cases.

Excisions.—Fourteen were subjected to excision. Three of these recovered with an angle of 160° or less; 6 at 170°; and 3 at 180° (perfectly straight). In 2 the deformity is not known. In 1 there is a half-inch shortening; in 1, one inch; in 2, two inches; in 1, two and a half inches; in 1, three inches; in 1, three and a

half inches; in 2, four inches; in 1, eight inches; and in 4 the result is unknown.

The author believes that the teaching of his experience is against excision of the knee-joint.—*American Journal of Medical Sciences*, October, 1893.

GENITO-URINARY ORGANS.

Involuntary Resection of a Large Portion of the Urinary Bladder; Successful Reconstruction. By Dr. E. LOUMEAU (Bordeaux). In the case of a woman, thirty-five years of age, the subject of chronic inflammation of the pelvic organs, the author, in the course of an operation for removal of adherent and damaged appendages, found, on opening the abdomen, a mass of inflammatory deposit extending from the abdominal wall to the rectum, covering in entirely the ventral surface and fundus of the uterus. This was cut away with scissors; the freed uterus was then drawn forward and, after the appendages had been removed, was sutured to the anterior abdominal wall. The abdominal wound was then closed. Before sending the patient to bed, however, a catheter was introduced into the bladder. A few drops of blood only escaped. This awakening apprehensions that the bladder had been wounded during the operation, the abdomen was immediately reopened, when it was discovered that there had been a resection of the entire free end of the organ. The only portions remaining were that part which lies upon the vagina containing the two ureteral orifices and a small segment of the ventral wall.

Owing to the impossibility of reconstructing by suture of the remaining walls a bladder cavity as large as a thimble, Loumeau was forced to adopt the following procedure: The peritoneum was first sutured above the bladder, thus shutting off the peritoneal cavity. The fragment of the bladder which remained in contact with the uterus and the vaginal wall was dissected free with great care, drawn forward, and then sutured to the abdominal wall, thus forming a

vesico-cutaneous sac. This was treated subsequently just as in suprapubic cystotomy, using at first the tubes of Périer-Guyon. At the end of two weeks these were removed and a Malécot catheter introduced into the urethra, being changed twice a week for a period of six weeks more, when the use of the catheter was stopped. From this time micturition was through the urethra, and not more frequent than before the operation. She then gave the information that for a long time previously she had been obliged to urinate very frequently, and only passed a few drops of urine at a time; an important fact to which attention had never before been drawn.

The abdominal wound first made healed by first intention; the opening into the diminutive bladder closed by granulation. Nine months afterward the patient could walk long distances without fatigue, and all the symptoms referable to the uterus (which still maintained the position in which it had been sutured) had disappeared. Desire to urinate occurred every three or four hours, and the act was never involuntary. The bladder held easily 360 grammes of urine, an almost incredible amount when one considers the small amount of tissue available for the new bladder wall. When thus distended it bulged somewhat above the pubis, as far as eight centimetres below the navel. When the patient urinates she is obliged to bend forward and strain some at the end of the act in order to completely satisfy the desire to make water. This is because of a cicatricial band which stretches across the bladder wall and prevents the organ from being entirely emptied in the usual way.

The piece of the bladder which was cut away was triangular and covered by a thick layer of false membrane.—*Chirurgie des Voies Urinaires, par E. Loumeau.*

H. P. DE FOREST (Brooklyn).